CASE REPORTS

A CASE OF POLYSEROSITIS

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The case I have to record is that of a boy of twelve years who enjoyed good health, apart from an attack of whooping-cough, until October, 1934, when he was kicked by a horse. This injury consisted of an abrasion of the third finger of the left hand, and possibly a bruise on the chest. The injury was not regarded as serious at first, but his hand became swollen, and eventually he had to go to bed, being very seriously ill. The history of this illness is rather indifferent, but there is no doubt that he had a pericardial effusion, but the character of the fluid or its certain cause is unknown. The boy was kept in bed for several weeks, and during this time the wound in his finger "broke down," and did not make any attempt to heal until two pieces of bone were extruded. This was probably in December of 1934.

His progress from this time was steady, up to a point, but his mother thinks that he never really recovered, and that his health has been indifferent since then. She thinks he has become "delicate," and is not "strong."

The physical examination on admission to hospital in July, 1935, showed that he was pale and somewhat under-nourished, his weight being seventy-six pounds. The cardiac dullness was increased outward and upwards, but not to the right. The heart-sounds were distant, no murmurs were heard, and the rhythm was regular. Pulmonary resonance was impaired on the left, and Traube's space was dull. The outline of the abdomen was full, and there was some shifting dullness. On palpation it was felt to be "doughy." The Mantoux skin tuberculin test was positive. The temperature was normal.

July 27.—An X-ray of the chest showed a large pericardial effusion, with a sharp outline of the left border in the middle zone being continuous with the aortic arch and the base of the heart (fig. 1). The left cardiophrenic angle was obscured by a pleural effusion.

July 28.—The chest was explored, and 30 c.c. of fluid were withdrawn from the pleural cavity. This fluid was blood-stained and contained some pus cells, but no organisms were seen. Diphtheroid organisms were reported on culture. No tubercle bacilli were seen.

August 1.—The pericardium was tapped, and 30 c.c. of a greenish fluid were obtained. No organisms were seen in this fluid, and a culture was sterile. The aspiration of this amount of fluid made no difference to the X-ray appearance of the cardiac shadow.

August 8.—The pericardium was again aspirated, and 350 c.c. of fluid obtained without causing any cardiac distress. This fluid was similar in character to that previously reported.

August 9.—An X-ray of the chest still showed a considerable quantity of fluid in the pericardium. The fluid level was indicative of a pneumo-pericardium, with evidence of a pleural effusion (fig. 2). This film shows a considerable degree of thickening of the pericardium. A film taken the next day with the patient in the prone position showed that the fluid was quite free within the pericardial sac.

The boy's physical condition remained much the same. There was no dyspnœa, no circulatory œdema, and no evidence of cardiac distress. His weight remained constant, and he took his food well. Examination at this time showed his apex beat to be four inches from the middle line. The heart-sounds were still faint. Deep inspiration showed indrawing of the lower intercostal spaces, but there were no abnormal pulsations. There was no clubbing of the fingers.

August 13.—It was noticed that he had a network of veins over the front of the chest. When he was placed in the prone position, the cervical veins were noticed to fill up to the level of one inch above the manubrium. The abdomen was tense and distended.

September 2.—It was noted that the pericardial effusion was apparently as marked as before. The abdomen was becoming progressively more distended, and there was evidence of free fluid within the pericardial cavity. No œdma of the extremities was noted. His weight had increased by eight pounds.

September 5.—The peritoneal cavity was explored, but only a few drops of mucoid fluid were obtained. A few days later the evidence pointed to a considerable quantity of fluid being present, and the peritoneal cavity was again explored, but only a few drops of blood-stained fluid were obtained. A rectal examination made at this time revealed a rounded mass about the size and shape of a small egg, and the possibility of the condition being malignant was considered.

An attempt was now made to elucidate the problem of the cause of the recurring pericardial effusion associated with the presence of fluid in the pleural and peritoneal cavities. The provisional diagnosis at this time was one of polyserositis, but it was felt that there might be some other underlying condition. A number of clinical and laboratory investigations were made. A blood-count showed red cells 4,500,000, with hæmoglobin 86 per cent., and white cells 11,200. The differential count was as follows: polymorphonuclears 73 per cent., eosinophiles 2 per cent., basophiles 1 per cent., large lymphocytes 6 per cent., small lymphocytes 11 per cent., large mononuclears 4 per cent., and transitionals 3 per cent. The Wassermann reaction was negative, and the blood-calcium was 18.1 mgms. per 100 c.c. of blood. An intravenous pyelogram absolved the kidney from malignant changes by showing normal shadows. A barium enema showed no signs of obstruction from the rectum to the cæcum, there being only slight evidence of colitis. A microscopical examination of the urine revealed a few red and white blood cells, but no tubercle bacilli.

The only abnormality that was found was the rather high blood-calcium figure, and this may bear some relation to the histological report received later. The abdomen could not be properly palpated, and the condition therein was very uncertain, so that an exploratory laparotomy was performed on September 27. The peritoneum showed, on the parietal and visceral surfaces, numerous nodules varying in size from a pinhead to a small marble. The cavity was practically obliterated

by adhesions which formed largish plaques of proliferative tissue. It was impossible to examine the liver on account of large masses of adherent peritoneum. The kidneys and other abdominal organs were apparently normal. Some tissue was removed for examination, as was also a lymph-gland.The pericardium was aspirated previous to the operation, and 410 c.c. of fluid obtained. A guinea-pig was inoculated with a specimen of the fluid.

The pathologist's report was that the mesenteric gland and nodules were the seat of chronic caseous tuberculosis. In the lymph-gland the tuberculous lesion tends to conform to the proliferative type in the respect that caseation was relatively slight and tissue reaction is considerable.

October 24.—The pericardium was again aspirated, and 850 c.c. of fluid were withdrawn. Air was excluded from the pericardial sac, and an X-ray revealed that the pericardial membrane was collapsible and apparently not adherent to structures either lateral or anterior. The axis of the enlarged heart-shadow is, however, oblique, and suggests that there may be some adhesions with the structures of the posterior mediastinum.

The guinea-pig which had been injected with pericardial fluid was reported to be suffering from tuberculosis.

The significant features of this case are: (1) The trivial nature of the initial illness which led to pericarditis. (2) The character of the pericardial effusion and its non-absorption and persistent recurrence. (3) The presence of tuberculous infection of at least two serous membranes, as proved by the result of injection of pericardial fluid into the guinea-pig, and the pathological report on the tissues removed from the peritoneum. (4) The history of previous good health.

Attention is drawn to fig. 1, which shows the thickening of the pericardium, indicative of the involvement of all serous sacs, and possibly related to the high blood-calcium figure. It is also noted that the heart has remained normal throughout, and is not the victim of a constrictive adhesion, which would, in turn, result in ascites and œdema of the extremities, as in Pick's disease.

The disease known as polyserositis is sometimes called polyorrhomenitis, chronic hyperplastic peritonitis, Concato's disease, etc. Examples are not common, but they would seem to fall into three groups: (1) Those associated with varying degrees of chronic inflammation of the pericardium, pleuræ, and peritoneum. The commonest sac in which it may originate is the pericardium. In such cases one must presuppose a very much attenuated infection, and in this case now reported, one does not know if the tuberculous condition has persisted throughout or whether it has been imposed upon a pathological condition produced by some other organism. In this connection it is unfortunate that the character of the fluid in the original pericarditis is unknown. (2) In another group a relation exists between a perihepatitis with ascites, arterio-sclerosis, and granular contracted kidneys. In such cases the kidney is regarded as the organ primarily at fault, and the involvement of the various sacs is secondary. (3) The third group includes granulomatous conditions such as tumour, growth, or a proliferative type of tuberculosis. The present case seems to be related to the first and third groups in its characteristics and clinical features.

The diagnosis from Pick's disease (chronic constrictive pericarditis) is relatively

simple in this case, as there are no signs of cardiac distress, nor is ascites a prominent feature. White, in a recent description of Pick's disease, states: "Polyserositis is due to tuberculosis, associated with pneumonia, or, most commonly, of unknown origin. The pleuræ and pericardium are the serous cavities generally involved, but sometimes the peritoneum is also affected. The infection begins as an acute process, sometimes insidious and obscure, with little clinical evidence, and sometimes severe and easily diagnosed." White admits that polyserositis may precede Pick's disease, and that the two conditions may coincide. Other possibilities of diagnosis were considered and excluded. Malignancy was eliminated, in view of the histological report. Rheumatic pericarditis is usually followed by dense adhesions accompanied by hypertrophy of the heart. In this boy the heart is not hypertrophied, and there are no endocardial murmurs. Portal cirrhosis is scarcely worth consideration, on account of the absence of ascites, which is such a prominent feature of this condition.

In expressing my thanks to Professor Young for the pathological report, to Dr. Douglas Boyd for the radiograms, and to Drs. Fisher and Galbraith for the clinical notes, I must not omit the patient. He has been very interested in every procedure carried out, and most co-operative in all the investigations to which he has been subjected.

A CASE OF CARCINOMATOSIS OF GLANDS OF UNKNOWN ORIGIN

By C. J. A. Woodside, F.R.C.S.I.,
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A married woman, 62 years old, was sent to the out-patient department by Dr. Nicholson of Bangor. Her sole complaint was a swelling of the upper part of the left side of the neck, first noticed three weeks before. It was painless, and she had the impression that it was subsiding. She declared that she was in good health, and had had no recent illness. Twenty-five years ago she was operated on for a strangulated hernia and an ovary was removed, and ten years ago she had severe "neuritis."

She was a plump and cheerful little woman, rather pale and slightly anæmic. Her teeth were false, her mouth and pharynx healthy.

On the left side of the neck, behind and below the angle of the jaw, was a swelling the size of a half lemon, consisting of enlarged and discrete upper deep cervical lymph-glands. The skin was just perceptibly thickened over them, and possibly a little adherent. The occipital glands were also enlarged, although there was no scalp lesion. The lower group of glands on this side were not enlarged, but a couple of small supraclavicular nodes could be felt. The right side of the neck was normal. Both axillæ were filled with masses of large and perfectly discrete glands; both breasts then felt normal. The glands in the groin were palpable, but not grossly enlarged. The abdomen revealed no abnormality. An X-ray of her chest was normal.

On clinical grounds the condition strongly suggested Hodgkin's disease, with the alternative diagnosis of a lymphoid leukæmia.

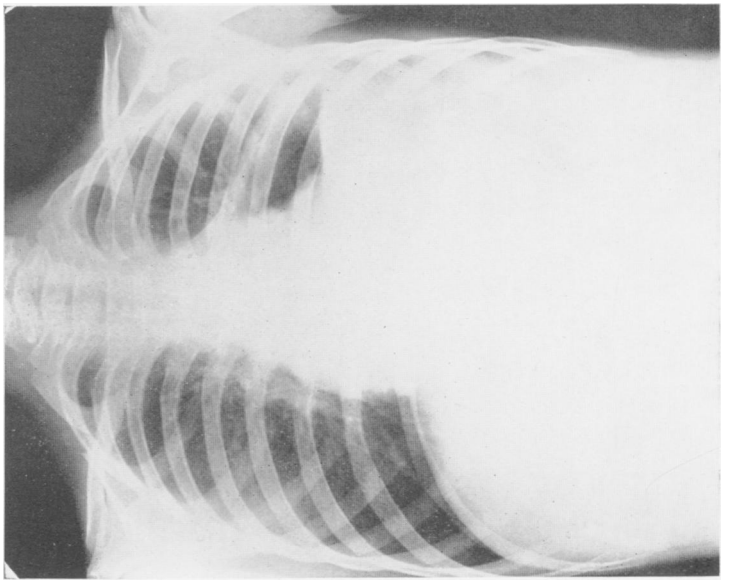

Fig. 2

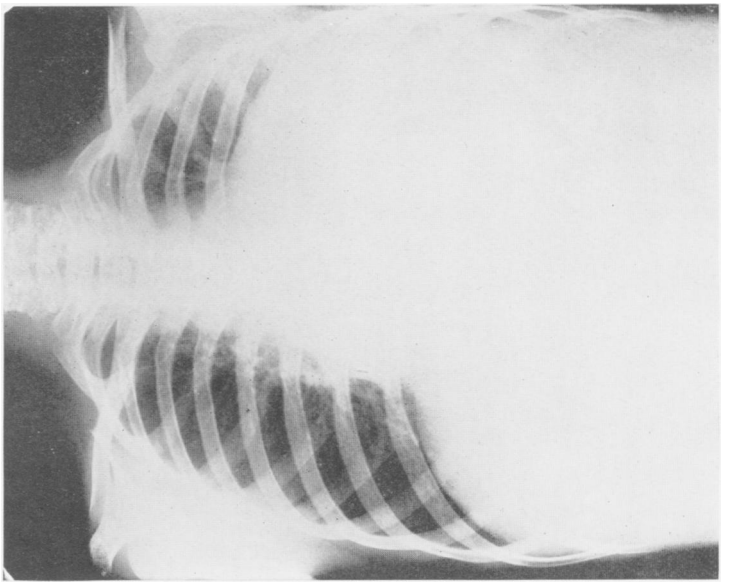

Fig. 1